

FORM PTO-1449				Page 1 of 7			
INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1875.3760001			
				APPLICATION NO. To be assigned			
				FIRST NAMED INVENTOR Minsheng Wang			
				FILING DATE February 25, 2004			
				ART UNIT 2819			
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
PIP	AA1	6,583,742	06-2003	Hossack, David MacDonald	341	144	
	AB1	6,292,124	09-2001	Hanada et al.	341	144	
	AC1	6,124,813	09-2000	Robertson et al.	341	155	
	AD1	6,518,899	02-2003	Yu, Xianggang	341	118	
	AE1	6,577,261	06-2003	Brooks et al.	341	101	
	AF1	6,545,623	04-2003	Yu, Paul C.	715	513	
	AG1	6,466,153	10-2002	Yu, Paul C.			
	AH1						
	AI1						
	AJ1						
	AK1						
<b>FOREIGN PATENT DOCUMENTS</b>							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Yes No
	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No
							Yes No
<b>OTHER (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
PIP	AR	1	Kwan, "Shuffler Apparatus and Related Dynamic Element Matching Technique for Linearization of Unit-Element Digital to Analog Converters, Fig. 2a, US 2003/0137439				
PIP	AS	1	Yasuda et al., "A Third-Order $\Delta$ - $\Sigma$ Modulator Using Second-Order Noise-Shaping Dynamic Element Matching," IEEE Journal of Solid-State Circuits, Vol. 33, No. 12, pp. 1879-1886, IEEE (December 1998).				
PIP	AT	1	Kwan et al., "A Stereo Multibit $\Sigma\Delta$ DAC with Asynchronous Master-Clock Interface," IEEE Journal of Solid-State Circuits, Vol. 31, No. 12, pp. 1881-1887, IEEE (December 1996).				
EXAMINER				DATE CONSIDERED			
P JEANPIERRE				2/24/04			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

FORM PTO-1449  <b>INFORMATION DISCLOSURE STATEMENT</b>	Page 2 of 7	
	ATTY. DOCKET NO. 1875.3760001	APPLICATION NO. To be assigned
	FIRST NAMED INVENTOR Minsheng Wang	
	FILING DATE February 25, 2004	ART UNIT 2819

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
/	AA2						
	AB2						
	AC2						
	AD2						
	AE2						
	AF2						
	AG2						
	AH2						
	AI2						
	AJ2						
	AK2						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
/	AL2						Y s No
	AM2						Y s No
	AN2						Yes No
	AO2						Y s No
	AP2						Y s No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
PIP	AR	2	Adams <i>et al.</i> , "A 113-dB SNR Oversampling DAC with Segmented Noise-Shaped Scrambling," IEEE Journal of Solid-State Circuits, Vol. 33, No. 12, pp. 1871-1878, IEEE (December 1998).
PIP	AS	2	Welz <i>et al.</i> , "Simplified Logic for First-Order and Second-Order Mismatch-Shaping Digital-to-Analog Converters," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 48, No. 11, pp. 1014-1027, IEEE, (November 2001).
PIP	AT	2	Grilo <i>et al.</i> , "A 12-mW ADC Delta-Sigma Modulator With 80 dB of Dynamic Range Integrated in a Single-Chip Bluetooth Transceiver," IEEE Journal of Solid -State Circuits, Vol. 37, No. 3, pp. 271-278, IEEE (March 2002)

EXAMINER <b>P. JEANPIERRO</b>	DATE CONSIDERED <b>5/24/04</b>
<small>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.</small>	

FORM PTO-1449  <b>INFORMATION DISCLOSURE STATEMENT</b>	Page 3 of 7	
	ATTY. DOCKET NO. 1875.3760001	APPLICATION NO. To be assigned
	FIRST NAMED INVENTOR Minsheng Wang	
	FILING DATE February 25, 2004	ART UNIT 2819

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
/	AA3						
	AB3						
	AC3						
	AD3						
	AE3						
	AF3						
	AG3						
	AH3						
	AI3						
	AJ3						
AK3							

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
/	AL2						Y s No
	AM2						Yes No
	AN2						Y s No
	AO2						Yes No
	AP2						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
PIP	AR	3	Ian Galton, "Spectral Shaping of Circuit Errors in Digital-to-Analog Converters," IEEE Transactions on Circuits and Systems - II: Analog and Digital Signal Processing Vol. 44, No. 10 pp. 808-817, IEEE (October 1997).
PIP	AS	3	Norsworthy <i>et al.</i> , Delta-Sigma Data Converters: Theory, Design and Simulation, pp. 185-186, IEEE Press, 1997.
PIP	AT	3	Zelniker <i>et al.</i> , Advanced Digital Signal Processing: Theory and Applications, pp. 357-364, Marcel Dekker, Inc. (1994).
EXAMINER <span style="float: right;">P. JEANPIERRE</span>			
DATE CONSIDERED <span style="float: right;">✓ 2/24/04</span>			
<small>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.</small>			

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1875.3760001APPLICATION NO.  
To be assignedFIRST NAMED INVENTOR  
Minsheng WangFILING DATE  
February 25, 2004ART UNIT  
2819

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						
	AG1						
	AH1						
	AI1						
	AJ1						
	AK1						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1						Yes No
	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<del>PIP</del>	AR	4	Morteza Vadipour, "Techniques for Preventing Tonal Behavior of Data Weighted Averaging Algorithm in $\Sigma$ - $\Delta$ Modulators," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 47, No. 11, pp. 1137-1144, IEEE (November 2000).
<del>PIP</del>	AS	4	Chen <i>et al.</i> , "Some Observations on Tone Behavior in Data Weighted Averaging," Proceedings of the 1998 International Symposium on Circuits and Systems, Vol. 1, pp. 500-503, IEEE (1998).
PIP	AT	4	Chen <i>et al.</i> , "An Improved Technique for Reducing Baseband Tones in Sigma-Delta Modulators Employing Data Weighted Averaging Algorithm Without Adding Dither," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 46., No. 1, pp. 63-68, IEEE (January 1999).

EXAMINER

P JEANPIERRO

DATE CONSIDERED

5/24/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449  <b>INFORMATION DISCLOSURE STATEMENT</b>	Page 5 of 7	
	ATTY. DOCKET NO. 1875.3760001	APPLICATION NO. To be assigned
	FIRST NAMED INVENTOR Minsheng Wang	
	FILING DATE February 25, 2004	ART UNIT 2819

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2						
	AB2						
	AC2						
	AD2						
	AE2						
	AF2						
	AG2						
	AH2						
	AI2						
	AJ2						
AK2							

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
/	AL2						Y s
	AM2						No
	AN2						Y s
	AO2						No
	AP2						Yes
							No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
PUP	AR	5	Radke <i>et al.</i> , "A 14-Bit Current-Mode $\Sigma\Delta$ DAC Based Upon Rotated Data Weighted Averaging," IEEE Journal of Solid-State Circuits, Vol. 35, No. 8, pp. 1074-1084, IEEE (August 2000).
PU	AS	5	Baird <i>et al.</i> , "Improved $\Delta\Sigma$ DAC Linearity Using Data Weighted Averaging", pp. 13-16, IEEE (1995).
PUP	AT	5	Radke <i>et al.</i> , "A Spurious-Free Delta-Sigma DAC Using Rotated Data Weighted Averaging," IEEE 1999 Custom Integrated Circuits Conference, pp. 125-128, IEEE (1999).

EXAMINER <b>P. JEANPIERRO</b>	DATE CONSIDERED <b>5/24/04</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1875.3760001APPLICATION NO.  
To be assignedFIRST NAMED INVENTOR  
Minsheng WangFILING DATE  
February 25, 2004ART UNIT  
2819

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3					
	AB3					
	AC3					
	AD3					
	AE3					
	AF3					
	AG3					
	AH3					
	AI3					
	AJ3					
	AK3					

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2					Yes
	AM2					No
	AN2					Yes
	AO2					No
	AP2					Yes
						No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

PIP	AR	6	Jensen et al., "A Low-Complexity Dynamic Element Matching DAC for Direct Digital Synthesis," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 45, No. 1, pp. 13-27, IEEE (January 1998)
PIP	AS	6	Annovazzi et al., "A Low-Power 98-dB Multibit Audio DAC in a Standard 3.3-V 0.35- $\mu$ m CMOS Technology," IEEE Journal of Solid-State Circuits, Vol. 37, No. 7, pp. 825-834, IEEE (July 2002)
PIP	AT	6	Welz et al., "A Necessary and Sufficient Condition for Mismatch Shaping in Multi-Bit DACs," IEEE, pp. 1-105 to 1-108, IEEE (2002)

EXAMINER

P. JEANPIERRO

DATE CONSIDERED

2/24/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

1875.3760001

APPLICATION NO.

To be assigned

FIRST NAMED INVENTOR

Minsheng Wang

FILING DATE

February 25, 2004

ART UNIT

2819

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA7					
	AB7					
	AC7					
	AD7					
	AE7					
	AF7					
	AG7					
	AH7					
	AI7					
	AJ7					
	AK7					

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL7					Yes
						No
	AM7					Yes
						No
	AN7					Yes
						No
	AO7					Yes
						No
	AP7					Yes
						No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

PIP	AR	Z	Fogleman et al., "A Digital Common-Mode Rejection Technique for Differential Analog-to-Digital Conversion," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 48, No. 3, pp. 255-271, IEEE (March 2002)
PIP	AS	Z	Lin et al., "A Bandpass Mismatch-Shaped Multi-Bit $\Sigma\Delta$ Switched-Capacitor DAC using Butterfly Shuffler," 1999 IEEE International Solid-State Circuits Conference, 0-7803-5129-0/99, IEEE (1999)
	AT	Z	

EXAMINER

P. JEANPIERRE

DATE CONSIDERED

2/24/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.